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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,966	06/02/2000	Kiyofumi Tsuruta	1614.1057	5257

21171 7590 08/01/2005

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EXAMINER

BLACKWELL, JAMES H

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/584,966

Applicant(s)

TSURUTA, KIYOFUMI

Examiner

James H. Blackwell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office Action is in response to amendment filed 05/16/2005.
2. Claims 1-2, 4-5, and 9-14 remain pending.
3. Claims 1, 4, and 9 are independent claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-5, 9, 11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zdybel, Jr. et al. (hereinafter Zdybel, U.S. Patent No. 5,486,686) in view of BarCode1 (R. Adams, "BarCode1 web site, 2-D BarCode page, downloaded from

<"http://web.archive.org/web/19990128002119/http://www.adams1.com/pub/russadam/stack.html"> dated 01/28/1999).

5. **Regarding independent Claim 1 (and similarly independent Claims 4, and 9), Zdybel teaches a method of producing printed matter containing a direct reading material and an additional material related to the direct-reading material by an information processing apparatus** by producing unfiltered or filtered (i.e., complete or partial, uncompressed or compressed) machine readable digital representations of

electronic documents and human readable renderings of them on the same recording media using the same printing process using a printer (Col. 4, lines 45-51; Figs. 3-4).

Zdybel does not explicitly teach that *the direct-reading material comprising text and pictures, and the additional material comprising text, sound, and images related to the direct-reading material*. However, BarCode1 teaches Datastrip Code, which was originally called Softstrip and was developed by Softstrip Systems. It is the oldest of the two dimensional symbologies. Datastrip Inc now owns this proprietary code. It is a patented encoding and scanning system that allows, data, graphics and even digitized sound to be printed on plain paper in a highly condensed format and read error-free into a computer. Datastrip's main components are printed graphic patterns (the Datastrip) and electro-optical readers. A Datastrip Code consists of a matrix pattern, comprising very small, rectangular black and white areas (or DiBits). Markers down the side and across the top of the strip (start line, checkerboard and rack) contain alignment information for the Datastrip Code readers and ensure data integrity. Header information contains details about the data stored on the strip: file name, number of bytes, density of the data strip, etc. The Datastrip encoding method, which includes parity bits on each encoded line, offers excellent reliability and error correction capabilities. Data strips are typically up to 5/8 inch wide and up to 9 inches long. Data density can vary from 150 to 1,000 bytes per square inch, depending upon the printing technology used to produce the strips. Datastrip Code can be successfully produced by most types of dot matrix, laser (including very high speed centralized laser printers), ink jet or thermal printers. Datastrip Code can be reproduced on most types of paper

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(including newsprint) and plastic, using conventional printing processes, ranging from office photocopiers (for lower density strips) to high speed web presses. Low-density strips (up to 1,100 bytes per 9-inch strip) may be produced on most dot matrix printers. Strips containing up to 3,500 bytes can be produced using laser printing technologies. Very high-density strips (up to 4,800 bytes) require more sophisticated production methods using photographic techniques. Special readers must read Datastrip Code from Datastrip, Inc. and the reader must be in contact with the code. *Originally this code was promoted as a way to publish software in books and magazines in a machine-readable form* (emphasis added). The code is now of most interest for printing information on ID cards (p. 7 of 10, paragraphs 1-4). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Zdybel and BarCode1 because both inventions relate to bar codes that encode additional material related to the printed data. Adding BarCode1 provides the benefit of adding the ability to encode text, graphics and audio to accompany printed text in documents such as computer magazines.

Zdybel continues to teach *converting primary data of the additional material into secondary data in the form of codes for high-density display* in that for integrating a digital, machine readable representation (101) of the electronic document (32) with the human readable rendering of it, the bit-level digital data content of the ASCII, DDL or PDL encodings of all or selected portions of the electronic document (32) is encoded at (105) to convert it into "glyph encodings" (encodings representing distinctive markings having at least two distinguishable, machine readable states—viz., a true ("1") state and

a false ("0") state). These glyph encodings are then merged into the electronic document description file for the electronic document (32) to cause the glyphs to be printed on the hardcopy output document (102) at one or more selected locations (Col. 8, lines 39-50).

Zdybel also teaches *performing an allocating operation for the direct-reading material and the additional material in accordance with a type space corresponding to the secondary data* in that the glyphs may be printed at various locations on the hardcopy document (102). For instance, one or more fields may be set aside in the top, bottom, right-hand, or left-hand margins of the document (102) for the printing of such glyphs. Alternatively, as shown in Figs. 3 and 4, the glyphs may be printed in machine identifiable glyph frames which are fully or partially confined within the margins of the human readable field of the document (102) or fully outside those margins (Col. 9, lines 13-21).

Zdybel also teaches that *the primary data of the additional material converted into the secondary data in the form of codes for high-density display comprise data from which information content is obtained directly without accessing a separate storage location* in that, for example, the glyph encoded data that is embedded in the hardcopy document (102) may include one or more of the following: machine readable descriptions of the data points for structured graphics as at (131), machine readable descriptions of the algorithms utilized for performing computations for spreadsheets and the like as at (132), machine readable descriptions of hypertext pointer values as at (133), machine readable descriptions of some or all of the structural characteristics of

the electronic source document as at (134), machine readable descriptions of the document editor used to prepare the source document (32), as at (135), machine readable descriptions of the file name and storage location of the electronic source document (32), as at (136), and machine readable descriptions of audit-trail data for the electronic source document (32), as at (137) (Col. 10, lines 13-27).

Zdybel also teaches *a specific way of allocating the additional material with respect to the relevant direct-reading material is selected from among the following ways of allocating the additional material: allocating at an immediate position of the relevant direct-reading material, allocating at a special place, allocating at a directly designated vacant position, or allocating at a directly designated overlapping position* in that, as stated above, the glyphs may be printed at various locations on the hardcopy document (102). For instance, one or more fields may be set aside in the top, bottom, right-hand, or left-hand margins of the document (102) for the printing of such glyphs (*allocating at a directly designated vacant position*). Alternatively, as shown in Figs. 3 and 4, the glyphs may be printed in machine identifiable glyph frames which are fully or partially confined within the margins of the human readable field of the document (102) or fully outside those margins (Col. 9, lines 13-21).

In regard to dependent Claim 2 (and similarly dependent Claim 5), Zdybel teaches *said performing an allocating operation comprises linking the direct-reading material designated by a user and the related additional material* in that if all of the digital data contained by the electronic document (32) is printed in digital data form on the hardcopy (102), the electronic document (32) can be recovered merely by

employing the input scanner (12) for scanning the glyph encoded data to recover the data that affects the appearance of the document, as at (121), as well as the data that is not inferable from the appearance of the document, as at (122) (Col. 9, lines 46-53).

In regard to dependent Claim 11 (and similarly dependent Claims 13-14), Zdybel fails to specifically teach that *the secondary data in the form of codes for high-density display comprises two-dimensional barcode*. However, BarCode1 teaches Datastrip Code, which was originally called Softstrip and was developed by Softstrip Systems. It is the oldest of the two dimensional symbologies (p. 7 of 11, 1st paragraph). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Zdybel and BarCode1 as both inventions relate to bar codes that encode additional material related to the printed data. Adding BarCode1 provides the benefit of a 2-dimensional barcode scheme to encode the additional material.

6. Claims 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zdybel in view of BarCode1 and in further view of Ikeda (U.S. Patent No. 5,938,727).

7. **In regard to dependent Claim 10 (and similarly dependent Claim 12),** neither Zdybel nor BarCode1 teach *said linking the direct-reading material and the related additional material uses an address of a separate storage location in which said related additional material is stored*. However, Ikeda teaches a barcode representing a URL as well as the URL itself are printed side by side on a printed medium such as a magazine advertisement or newspaper insert. When a user who has found an interesting object in

the printed medium has the affixed barcode scanned by a scanner, software incorporated into the user's personal computer operates to convert the barcode to a URL so as to have a WWW client software, such as Mosaic and Netscape Navigator, recognize it, whereby a specified homepage is instantaneously accessed and displayed on the screen and the desired information is obtained. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Zdybel, BarCode1, and Ikeda as all three inventions provide a mechanism to relate printed material and additional material related to the printed material. Adding the teaching of Ikeda provides a link mechanism to the additional material that a user can scan to take them to the additional material.

Response to Arguments

8. Applicant's arguments filed 05/16/2005 with respect to independent claim 1 (and similarly independent claims 4, and 9), have been fully considered but they are not persuasive.

Specifically, Applicant argues that neither Zdybel nor Barcode1 teaches or suggests providing specific ways of allocating information, including "allocating at an immediate position of the relevant direct-reading material, allocating at a special space, allocating at a directly designated vacant position, or allocating at a directly designated overlapping position" in an allocating operation, as recited in amended independent Claim 1. The Examiner disagrees. Respectfully, Zdybel teaches, as stated in the previous rejection, that the glyphs may be printed at various locations on the hardcopy

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document (102). For instance, one or more fields may be set aside in the top, bottom, right-hand, or left-hand margins of the document (102) for the printing of such glyphs, as shown in Figs. 3 and 4, the glyphs may be printed in machine identifiable glyph frames which are fully or partially confined within the margins of the human readable field of the document (102) or fully outside those margins (Col. 9, lines 13-21). This teaching suggests, for example, the claimed limitation *allocating at a directly designated vacant position* in that fields may be *set aside*, or allocated in different locations for the location and display/printing of glyphs that relate to the printed matter.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Blackwell whose telephone number is 571-272-4089. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James H. Blackwell
07/27/05

William F. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
7/28/2005